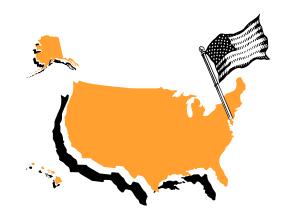


ILRS Missions WG Report

(MWG Meeting held on 28 Oct 2014)

Toshimichi Otsubo and Scott Wetzel



Agenda (28 Oct 2014)



- (1) Opening/Welcome
 - Chair: G M Appleby → T Otsubo (appointed at the ILRS GB Meeting in Fujiyoshida)
 - **Co-chair: S L Wetzel**
- (2) Recently approved missions, (3) Future missions (5 min max each)
 SpinSat (J Griffiths)
 - → Now on ISS. To be released in Jan 2015 Nov 2014!

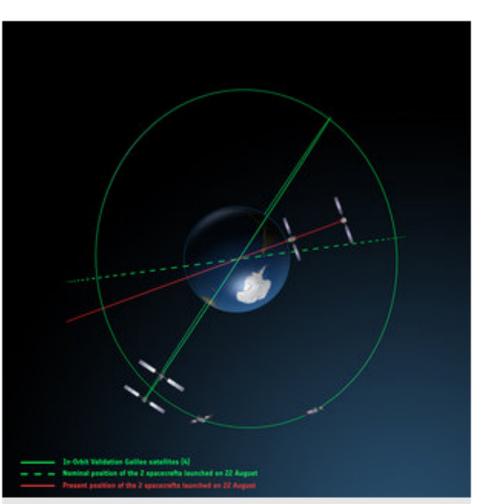
 Galileo 201 and 202 (D Navarro-Reyes; read by T Otsubo)
 - → Thrown into an elliptical orbit (Next slide). Request for ranging to come. IRNSS (V Jayaraman; read by T Otsubo)
 - → 3 (out of 7) satellites in orbits.
 - → Not a easy target, but observable from Euro-Aus-Asia region.
 - HY-2 series (Zhang Z; read by T Otsubo) + Nano satellite
 - → Zhang absent. Need to collect more info.
 - → (NEW!) Nano-sat: Additional info on 29 Oct (Next Slide)
 - → It is very important that we need MSRF to consider support!!

New Galileos (201, 202)



from ESA Daniel Navarro-Reyes (2 Oct):

GALILEO SATELLITES – STATUS UPDATE



16 September 2014 The fifth and sixth Galileo satellites have been in a safe state since 28 August, fully under control from ESA's centre in Darmstadt, Germany, despite having been released on 22 August into lower and elliptical orbits instead of the expected circular orbits.

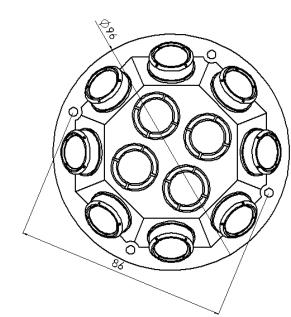
The potential of exploiting the satellites to maximum advantage, despite their unplanned injection orbits and within the limited propulsion capabilities, is being investigated.

Calileo orbite viewed from above

Updates from Zhang Z (29 Oct 2014)

International Laser Ranging Service

- Nano satellite project: 4-satellite system at 420 km alt.
- Name unknown
- Launch: June 2015
- The main payloads on the satellite are:
 - a detector of density of atmosphere distribution,
 - GNSS receiver
 - VLBI beaconing
 - LRAs (12 CCRs, 13 mm diameter, 110g)
- The missions of satellites are to acquire the data of density of atmosphere distribution with the orbit decay and research on the atmosphere model for POD of LEO satellites



Agenda (28 Oct 2014) cont.



GPS-III (L Thomas)

- → Full presentation on Thu. Design, build and test at NRL. 2019 or later. ELT (U Schreiber)
- \rightarrow To be installed on ISS in 2016. Range gate 1 μ s. Low energy. ICESAT-2 (S Luthcke; read by S L Wetzel)
- → Less restriction than ICESat-1? To be confirmed. Launch 2017 or 2018? JASON-3 (G Zaouche; read by S L Wetzel)
- → JASON-2 follow-on. Launch March 2015.

Sentinel-3 (P Féménias; read by G M Appleby)

- → No risk for the onboard components but will need final confirmation. Launch Sep or Oct 2015.
- (4) Mission Support Request (MSR) Form
 - → Ambiguous questions to be revised.
 - → From revision. Homework for MWG members.

(5) Closure